

CLAIMS

What is claimed is:

1. A floor system, comprising:

5 first and second layered members, each layered member comprising a surface layer; and a core layer coupled to the surface layer, wherein the core layer comprises an integral latching portion disposed on a first side of the core layer and an integral securing portion disposed on a second side of the core layer, the latching and securing portions being configured to mate interlockingly with respect to one another;

10 an adhesive coating disposed on at least one of the latching and securing portions of the respective first and second layered members; and

a sealant disposed to at least one of the latching and securing portions of the respective first and second layered members to inhibit the ingress of moisture.

15 2. The floor system as recited in claim 1, wherein the adhesive coating is applied to both the latching and securing portions of the first and second layered members.

3. The floor system as recited in claim 2, wherein the adhesive coating adhesively bonds to the respective first and second layered members.

20 4. The floor system as recited in claim 3, wherein the adhesive coating on the first layered member cohesively bonds to the adhesive coating on the second layered member subsequent to engagement of corresponding latching and securing portions.

25 5. The floor system as recited in claim 4, wherein the adhesive coating cohesively bonds by contact under ambient conditions without activation.

6. The floor system as recited in claim 1, wherein the sealant is disposed at least along lengths of the latching and securing portions of the respective first and second layered members along which the adhesive coating is disposed.

5 7. The floor system as recited in claim 6, wherein the sealant is disposed between the adhesive coating and an upper or lower surface of the layered members.

8. The floor system as recited in claim 1, wherein the adhesive coating is applied during manufacture.

10 9. The floor system as recited in claim 1, wherein in the core layer comprises a wood/resin composite.

15 10. The floor system as recited in claim 1, wherein the surface layer comprises a laminate layer.

11. The floor system as recited in claim 1, wherein the adhesive coating comprises a polyvinyl acetate that coheres without rewetting.

20 12. The floor system as recited in claim 1, wherein the adhesive coating has a substantially non-tacky surface and is adhesively bonded to the respective latching and securing portions.

25 13. The floor system as recited in claim 1, wherein the adhesive coating is adapted to provide a sliding interface between the latching and securing portions upon initial engagement of the first and second layered members.

14. The floor system as recited in claim 1, wherein the adhesive coating is adapted to facilitate positional adjustment of the layered members with respect to one another upon initial engagement of the first and second layered members.

5 15. The floor system as recited in claim 1, wherein the sealant is disposed at least adjacent to an upper surface of the first and second layered members.

16. A floor system comprising:
first and second members, each member comprising a latching portion coupled to the member, the latching portion having a substantially non-tacky coating adhesively bonded thereto, and a securing portion coupled to the member, the securing portion having the substantially non-tacky coating adhesively bonded thereto, the latching and securing portions further having a sealant applied thereto at least adjacent to an upper or lower surface of the respective member;
15 wherein the latching portion of the first member is adapted to couple interlockingly with the securing portion of the second member;
wherein the coating disposed on the first member and the coating disposed on the second member cohesively bond subsequent to engagement of the corresponding latching and securing portions; and
20 wherein the sealant inhibits the ingress of moisture between the members when they are joined.

17. The floor system as recited in claim 16, wherein the coating comprises polyvinyl acetate that coheres without rewetting.

25 18. The floor system as recited in claim 16, wherein the first and second members each comprise a plurality of layers.

19. The floor system as recited in claim 18, wherein the plurality of layers comprises a core layer.

20. The floor system as recited in claim 19, wherein the plurality of layers comprises a decorative sheet.

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21. The floor system as recited in claim 20, wherein the core layer comprises a wood/resin composite.

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22. The floor system as recited in claim 16, wherein the coating and sealant are disposed over a substantial length of the latching portion of at least one of the respective first and second members.

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23. The floor system as recited in claim 22, wherein the sealant is disposed on an unmated segment between the corresponding latching and securing portions.

24. The floor system as recited in claim 16, wherein the coating is adapted to provide a sliding interface between the corresponding latching and securing portions during initial engagement thereof.

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25. The floor system as recited in claim 16, wherein the coating facilitates lateral movement of the members with respect to one another upon initial engagement of the latching portion with the securing portion.

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26. A floor system, comprising:
first and second layered members, each layered member comprising a surface layer; and a core layer coupled to the surface layer, wherein the core layer comprises an integral latching portion disposed on a first side of the core layer and an integral securing portion

disposed on a second side of the core layer, the latching and securing portions being configured to mate interlockingly with respect to one another;

5 a substantially non-tacky PVA coating that coheres without rewetting, adhesively bonded to the latching and securing portions of the respective first and second layered members, wherein the coating of the first layered member cohesively bonds to the coating of the second layered member subsequent to engagement of corresponding the latching and securing portions by contact under ambient conditions without activation; and

10 a sealant applied to the latching and securing portions of the respective first and second layered members at least between an upper surface thereof and the coating to inhibit the ingress of moisture between the members when joined.

27. The floor system as recited in claim 26, wherein in the core layer comprises a wood/resin composite.

15 28. The floor system as recited in claim 26, wherein the surface layer comprises a laminate layer.

20 29. A method of manufacturing a floor panel member, comprising:
 forming a latching portion integral to a first side of the floor panel member, the latching portion having a latching profile;

 forming a securing portion integral to a second side of the floor panel member, the securing portion having a securing profile such that the securing profile interlockingly corresponds with the latching profile; and

25 applying a coating to the latching and securing portions, the coating being adapted to cohesively bond to itself, wherein the coating presents a substantially non-tacky surface and is adhesively bonded to the respective latching and securing portions; and

 applying a sealant to the latching and securing portions at least between an upper surface of the floor panel member and the coating.

30. The method as recited in claim 29, wherein applying comprises applying via a spray.

5 31. The method as recited in claim 29, further comprising applying a sealant to at least one of the respective latching and securing portions.

32. The method as recited in claim 29, wherein the coating is adapted to provide lubrication during initial engagement of corresponding latching and securing portions.

10 33. The method as recited in claim 29, wherein applying comprises applying the coating to the latching portion and the securing portion concurrently.

34. The method as recited in claim 29, wherein the coating comprises polyvinyl acetate that coheres without rewetting.

15 35. The method as recited in claim 29, further comprising forming the floor panel member via coupling a plurality of layers.

36. The method as recited in claim 35, wherein the plurality of layers comprises a wood/resin composite layer.